

## CLAIM LISTING

Claims 1-54 (cancelled).

55. (previously presented): A sound compensation system for altering an electrical audio signal for input to a sonic reproduction device having associated behavioral characteristics, said system comprising a model of the sonic reproduction device having a plurality of filters that simulate behavioral characteristics of the sonic reproduction device, wherein:

each said filter has an associated response that is combinable to define an overall response for the model; and

at least one said filter, which corresponds to an individual component of the sonic reproduction device, is replaceable with another filter in response to replacement of the individual component of the sonic reproduction device with another individual component, wherein the other filter simulates a behavioral characteristic of the other individual component.

56. (previously presented): The system of claim 55 wherein the individual component corresponds to an individual component of a speaker.

1 57.(previously presented): The system of claim 55 wherein the behavioral  
2 characteristics are defined by groups of individual components of the sonic  
3 reproduction device.

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5 58.(previously presented): The system of claim 55 wherein one or more  
6 said filters correspond to an enclosure of the sonic reproduction device.

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8 59.(previously presented): The system of claim 55 wherein the sonic  
9 reproduction device comprises a speaker and at least one of the plurality of filters  
10 comprises at least one associated adjustable parameter and the value of the  
11 parameter is calculated based on physical characteristics of the speaker.  
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14 60.(currently amended): The system of claim 55 ~~60~~ wherein the physical  
15 characteristics of the speaker comprises at least one of cone and coil mass, air  
16 volume, mechanical compliance, radiating area, damping, moving mass and motor  
17 characteristics.  
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20 61.(previously presented): The system of claim 55 wherein the sonic  
21 reproduction device comprises a speaker and at least one of the plurality of filters  
22 comprises at least one associated adjustable parameter and the value of the  
23 parameter is derived from a standard speaker model.  
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1           62.(previously presented): The system of claim 55 wherein at least one of  
2 the plurality of filters has at least one associated adjustable parameter and the  
3 value of the parameter is determined experimentally using standard test  
4 measurements.

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6           63.(previously presented): The system of claim 55 wherein the sonic  
7 reproduction device comprises a speaker and the one parameter that modules the at  
8 least one other parameter relates to the magnet structure and voice coil of the  
9 speaker.  
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